



# Materials Solutions for the Environment

The collection, development, and release of selected native and introduced plants to address specific resource concerns have been priorities of the USDA Natural Resource Conservation Service (NRCS) for over 65 years. Plant materials were initially produced for the stabilization of agricultural lands with difficult soil erosion problems during the 1930s Dust Bowl. In the early years of NRCS plant development, only limited species existed to address these needs. However, additional plant species were selected by the NRCS for testing at Plant Materials Centers (PMCs) located throughout the country. Increasingly, the PMCs have been called on to address new challenges in resource stabilization.

## **Stream Restoration**



Streams throughout the country are in need of bank stabilization, native plant community restoration, and gradient stabilization to meet water quality standards. PMCs are collecting, testing, and releasing native plants capable of restoring these specific environments.

# **Mine Reclamation**

Mining activity requires post-mining reclamation. While there are many plant species suitable for reclamation, some active mining regions lack plant materials that are adapted to the harsh climate and soil conditions of the mine. The vastly arid region of the Great Basin is one such area. PMCs are testing drought-tolerant plants suitable for mineland revegetation.

# Wildfire Rehabilitation Catastrophic wildfires have



Catastrophic wildfires have ravished extensive areas of the country, particularly in the West. Recent-year events have surpassed all previous fire occurrences across the country. Scientists warn of more frequent fires as populations expand to the urban-wildlands interface. Development of fire retardant species to establish fire-safe buffers between communities and susceptible wildlands is needed. In addition, when fires do occur it is imperative to have readily available supplies of native species to revegetate burn areas. PMCs are selecting species and developing planting techniques for fire risk reduction and restoration.

#### **Visual Enhancement**



As populations expand, so do parks, road median plantings, school grounds, and other green zones. PMCs are testing adaptable plant materials to maintain these areas without sacrificing aesthetics.

## **Invasive Species**



The National Governors Association recently targeted invasive species as a major natural resource concern. Each year invasive species overrun acreage equal in size to the entire state of Maine. The attempt to eradicate these species expends hundreds of millions of dollars on chemicals and other control methods. PMCs are testing native species to combat this threat.

For more information, visit http://Plant-Materials.nrcs.usda.gov and http://www.nrcs.usda.gov